```
C:\Program Files\Stnexp\Queries\1204.str
chain nodes :
```

```
8 9 10 11 12
                             19 20 21 22 23 26 27 28
                                                               29
                                                                    30
                                                                        31 32 33 34 35 36
                      13
                          18
    37
chain bonds:
   1-2 1-4 1-45 3-16 4-5 4-15 5-6 6-7 7-8 15-42 17-18 24-25 25-26
ring bonds :
    8-9 8-13 9-10 10-11 11-12 12-13 18-19 18-23 19-20 20-21 21-22 22-23 26-27
    26-31 27-28 28-29 29-30 30-31 32-33 32-37 33-34 34-35 35-36 36-37
exact/norm bonds :
    1-2 1-45 4-5 5-6 15-42 17-18
exact bonds:
   1-4 3-16 4-15 6-7 7-8 24-25 25-26
normalized bonds :
    8-9 8-13 9-10 10-11 11-12 12-13 18-19 18-23 19-20 20-21 21-22 22-23 26-27
    26-31 27-28 28-29 29-30 30-31 32-33 32-37 33-34 34-35 35-36 36-37
G1:[*1],[*2],[*3]
G2:OH, [*4]
Match level :
                      3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:Atom 8:Atom 9:Atom 10:Atom 13:Atom 15:CLASS 16:CLASS 17:CLASS 18:Atom 19:Atom 20:Atom 23:Atom 24:CLASS 25:CLASS 26:Atom 27:Atom 28:Atom 29:Atom
             2:CLASS
    1:CLASS
            12:Atom
    11:Atom
    21:Atom
             22:Atom
    30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 42:CLASS
    45:CLASS
Element Count:
    Node 7: Limited
       c,c6
```

24 25 42 45

1 2 3 4 5 6 7

ring nodes :

15

16 17

=> d his

(FILE 'HOME' ENTERED AT 07:15:23 ON 18 NOV 2004)

FILE 'REGISTRY' ENTERED AT 07:15:28 ON 18 NOV 2004

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 0 S L1 FUL

L4 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT * Structure attributes must be viewed using STN Express query preparation.

=>

Structure attributes must be viewed using STN Express query preparation.

=>

=> d bib abs hitstr 40-42

L10 ANSWER 40 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:66723 CAPLUS

DN 128:188290

TI Highly Selective and Orally Active Inhibitors of Type IV Collagenase (MMP-9 and MMP-2): N-Sulfonylamino Acid Derivatives

AU Tamura, Yoshinori; Watanabe, Fumihiko; Nakatani, Takuji; Yasui, Ken; Fuji, Masahiro; Komurasaki, Tadafumi; Tsuzuki, Hiroshige; Maekawa, Ryuji; Yoshioka, Takayuki; Kawada, Kenji; Sugita, Kenji; Ohtani, Mitsuaki

CS Shionogi Research Laboratories, Shionogi Co. Ltd., Osaka, 553, Japan

SO Journal of Medicinal Chemistry (1998), 41(4), 640-649 CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

ĢΙ

$$R^{5}$$
 X
 $SO_{2}NH$
 $CO_{2}H$
 II

AΒ Various N-sulfonylamino acid derivs., e.g. I (R1 = PhCH2, X = bond, Y = SO2, CO, Z = CONHOH, CO2H; R1 = indol-3-ylmethyl, X = bond, Y = SO2, Z = condolerCONHOH, CO2H; R1 = Me2CH, X = O, Y = SO2, Z = CONHOH, CO2H) and II (R2 = indol-3-ylmethyl, R5 = H, OMe-4, OMe-3, A = CH:CH, X = bond; R2 = indol-3-ylmethyl, R5 = Me-4, A = S, X = bond; R2 = CHMe2, R5 = OMe-4, SMe-4, A = CH:CH, X = bond; R2 = CHMe2, R5 = OMe-4, A = S, X = bond; R2 = CHMe2indol-3-ylmethyl, R5 = H, Me-4, CO2H-4, A = CH:CH, X = C.tplbond.C; R2 = indol-3-ylmethyl, R5 = NO2-2, NO2-4, Me-4, A = S, X = C.tplbond.C; R2 = CHMe2, R5 = Me-4, A = CH:CH, S, X = C.tplbond.C; R2 = CH2Ph, R5 = OMe-4, A= CH:CH, S, X = C.tplbond.C), were synthesized and evaluated for their in vitro and in vivo activities to inhibit type IV collagenase (MMP-9 and MMP-2). When the amino acid residue and the sulfonamide moiety were modified, their inhibitory activities were greatly affected by the structure of the sulfonamide moiety. A series of aryl sulfonamide derivs. containing biaryl, tetrazole, amide, and triple bond were found to be potent and highly selective inhibitors of MMP-9 and MMP-2. In addition, these compds. were orally active in animal models of tumor growth and metastasis. These results revealed the potential of the N-sulfonylamino acid derivs. as a new type of candidate drug for the treatment of cancer.

IT 140645-36-9P 193807-58-8P 193808-50-3P 193808-54-7P 193808-61-6P 203639-56-9P 203639-78-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-sulfonylamino acid derivs. as orally active type IV collagenase inhibitors)

140645-36-9 CAPLUS

RN

CN D-Tryptophan, N-([1,1'-biphenyl]-4-ylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 193807-58-8 CAPLUS

CN D-Phenylalanine, N-([1,1'-biphenyl]-4-ylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 193808-50-3 CAPLUS

CN D-Valine, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 193808-54-7 CAPLUS

CN D-Phenylalanine, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 193808-61-6 CAPLUS

CN D-Valine, N-[[4'-(methylthio)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 203639-56-9 CAPLUS

CN D-Tryptophan, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 203639-78-5 CAPLUS

CN D-Tryptophan, N-[(3'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

$$\begin{array}{c|c} H \\ H \\ R \\ N \\ H \end{array}$$

IT 193810-34-3P 203639-55-8P 203639-77-4P 203640-17-9P 203640-18-0P 203640-19-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of N-sulfonylamino acid derivs. as orally active type IV collagenase inhibitors)

RN 193810-34-3 CAPLUS

CN D-Phenylalanine, N-([1,1'-biphenyl]-4-ylsulfonyl)-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 203639-55-8 CAPLUS

CN D-Tryptophan, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 203639-77-4 CAPLUS

CN D-Tryptophan, N-[(3'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 203640-17-9 CAPLUS

CN D-Valine, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 203640-18-0 CAPLUS

CN D-Valine, N-[[4'-(methylthio)[1,1'-biphenyl]-4-yl]sulfonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 203640-19-1 CAPLUS

CN D-Phenylalanine, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 41 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:776147 CAPLUS

DN 128:48054

TI Biphenylsulfonamide matrix metalloproteinase inhibitors

IN O'Brien, Patrick Michael; Sliskovic, Drago Robert

PA Warner-Lambert Company, USA

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

FAN.	FAN.CNT 1 PATENT NO.						KIND DATE				APPLICATION NO.							DATE		
ΡI	WO	0 9744315				A1 19971127			1127	WO 1997-US6801							19970424			
			AL, AU,																	
								LV,												
								VN,												
		RW:						SZ,												
								NL,												
			ML,	MR,	ΝE,	SN,	TD,	TG	•				-	-					·	
	CA 2253342					AA 19971127				CA 1997-2253342							19970424			
	AU 9726803 AU 713286 EP 901466					A1 19971209				AU 1997-26803						19970424				
						B2 19991125														
						A1 19990317				EP 1997-918788					19970424					
	ΕP	EP 901466					B1 20011031													
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	ζ,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,	
			ΙE,			LV,														
		N 1219166				A 19990609				CN 1997-194719						19970424				
	CN	1077	885			В		2002	0116											
	BR	BR 9710841 NZ 332711					A 19990817													
	NZ	Z 332711					A 20000623 NZ 1997-332										9970	424		
	JP 2000511175					T2		2000							77			9970		
		AT 207891				E 20011115														
	ES 2167733					T3 20020516				ES 1997-918788										
		SK 282863				B6 20021203														
EE 3965						В1		2003												
	PL 186416 CZ 294063 ZA 9704223 BG 63940							2004							29					
						В6		2004												
						A 19971210														
NO 9805326																				
	KR 2000011095						2000													
	HK 1019585 US 1996-17460P					A1		2002		,	HK	19	99-:	1047	91		19	9991	027	
PRAI								1996												
		1997				W		1997	0424											
OS	MAF	RPAT :	128:4	48054	4															
GI																				

$$\begin{array}{c|c}
R^1 & & \\
& & \\
& & \\
R^2 & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
&$$

$$\operatorname{Br} \longrightarrow \operatorname{SO}_2 \longrightarrow \operatorname{OH} \longrightarrow \operatorname{II}$$

AB Title compds. I [R = H, halo; R1 = alkyl, halo, NO2, amino, aminoalkyl, cyano, alkoxy, alkoxycarbonyl, etc.; R2 = H, (un)substituted alkyl; and R3 = OH, alkoxy, or NHOH], are useful for inhibiting matrix metalloproteinase enzymes in animals, and as such, prevent and treat diseases resulting from the breakdown of connective tissues. For instance, 4-BrC6H4Ph underwent 4'-sulfonation (79%), conversion of the resultant sulfonic acid to the sulfonyl chloride (69%), sulfonamidation with H-Val-OtBu.HCl (60%), and deprotection of the ester (96%), to give

title compound II. In an in vitro test for inhibition of the hydrolysis of thiopeptolide by collagenase or gelatinase B, II gave IC50 values of 3.24 and 8.34 μM , resp.

IT 199850-89-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of biphenylsulfonamides as matrix
metalloproteinase inhibitors)

RN 199850-89-0 CAPLUS

CN L-Valine, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 199850-87-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of biphenylsulfonamides as matrix **metalloproteinase** inhibitors)

RN 199850-87-8 CAPLUS

CN L-Valine, N-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 199850-67-4P 199850-68-5P 199850-69-6P 199850-70-9P 199850-71-0P 199850-72-1P 199850-73-2P 199850-74-3P 199850-75-4P 199850-76-5P 199850-77-6P 199850-79-8P 199850-80-1P 199850-81-2P 199850-82-3P 199850-83-4P 199850-84-5P 199850-85-6P 199850-86-7P 199850-90-3P 199850-91-4P 199850-92-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of biphenylsulfonamides as matrix metalloproteinase inhibitors)

RN 199850-67-4 CAPLUS

CN L-Valine, N-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-68-5 CAPLUS

CN L-Valine, N-[(4'-chloro[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-69-6 CAPLUS

CN L-Valine, N-[(4'-nitro[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-70-9 CAPLUS

CN L-Valine, N-[(4'-amino[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 199850-71-0 CAPLUS

CN L-Valine, N-[(4'-cyano[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-72-1 CAPLUS

CN L-Valine, N-[(3',4'-dibromo[1,1'-biphenyl]-4-yl)sulfonyl]-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Na

RN 199850-73-2 CAPLUS

CN L-Valine, N-[(3'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 199850-74-3 CAPLUS

CN L-Valine, N-[(4'-bromo-2'-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-75-4 CAPLUS

CN D-Valine, N-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-76-5 CAPLUS

CN L-Phenylalanine, N-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 199850-77-6 CAPLUS

CN L-Phenylalanine, N-[[4'-(1-methylethyl)[1,1'-biphenyl]-4-yl]sulfonyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-79-8 CAPLUS

CN L-Alanine, N-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-80-1 CAPLUS

CN L-Leucine, N-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 199850-81-2 CAPLUS

CN L-Valine, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-82-3 CAPLUS

CN L-Valine, N-[(4'-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-83-4 CAPLUS

CN L-Valine, N-[(3'-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 199850-84-5 CAPLUS

CN L-Valine, N-[(4'-methyl[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-85-6 CAPLUS

CN L-Valine, N-[[4'-(trifluoromethyl)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-86-7 CAPLUS

CN L-Valine, N-[(4'-formyl[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 199850-90-3 CAPLUS

CN [1,1'-Biphenyl]-4-carboxylic acid, 4'-[[[(1S)-1-carboxy-2-methylpropyl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-91-4 CAPLUS

CN L-Valine, N-[[4'-(hydroxymethyl)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 199850-92-5 CAPLUS

CN L-Valine, N-[[4'-(aminomethyl)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

```
L10
     ANSWER 42 OF 42 CAPLUS COPYRIGHT 2004 ACS on STN
AN
     1997:513624 CAPLUS
DN
     127:162119
ΤI
     Preparation of N-sulfonylamino acid derivatives as
     metalloproteinase inhibitors
IN
     Watanabe, Fumihiko; Tsuzuki, Hiroshige; Ohtani, Mitsuaki
PA
     Shionogi and Co., Ltd., Japan
SO
     PCT Int. Appl., 128 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     Japanese
FAN.CNT 1
                                              APPLICATION NO.
     PATENT NO.
                          KIND
                                 DATE
                                                                      DATE
                          ----
     -----
                                  -----
                                              -----
                                                                       _____
                                 19970731
                                             WO 1997-JP126
                                                                      19970122
PΙ
     WO 9727174
                           A1
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
     CA 2242416
                           AA
                                 19970731
                                              CA 1997-2242416
                                                                       19970122
     AU 9713195
                           A1
                                  19970820
                                              AU 1997-13195
                                                                       19970122
     AU 715764
                           В2
                                 20000210
     CN 1214041
                           Α
                                  19990414
                                              CN 1997-193226
                                                                      19970122
     BR 9707010
                           Α
                                 19990720
                                              BR 1997-7010
                                                                       19970122
     EP 950656
                                 19991020
                                              EP 1997-900747
                           A1
                                                                      19970122
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     NZ 325939
                                 20000623
                                              NZ 1997-325939
                                                                       19970122
                           Α
     JP 2001316254
                           A2
                                 20011113
                                              JP 2001-69135
                                                                      19970122
     SK 282995
                           B6
                                 20030109
                                              SK 1998-984
                                                                      19970122
     RU 2198656
                           C2
                                 20030220
                                              RU 1998-115659
                                                                       19970122
                           В
     TW 575547
                                 20040211
                                              TW 1997-86100862
                                                                      19970127
     NO 9803376
                           Α
                                 19980914
                                              NO 1998-3376
                                                                      19980722
     US 6150394
                           Α
                                 20001121
                                              US 1998-120378
                                                                      19980722
                                              US 1998-120197
     US 6207698
                           B1
                                 20010327
                                                                      19980722
     US 6235768
                           В1
                                 20010522
                                              US 1999-307818
                                                                      19990510
     AU 738793
                           B2
                                 20010927
                                              AU 2000-30222
                                                                      20000501
                           В1
     US 6441021
                                 20020827
                                              US 2000-710904
                                                                      20001114
     US 2003139379
                           Α1
                                 20030724
                                              US 2002-188115
                                                                      20020703
                           A1
                                              US 2002-290245
     US 2003225043
                                 20031204
                                                                      20021108
PRAI JP 1996-30082
                           Α
                                 19960123
     JP 1996-213555
                                 19960813
     JP 1997-526728
                           A3
                                 19970122
     WO 1997-JP126
                           W
                                 19970122
     US 1998-120197
                           Α3
                                 19980722
     US 1998-120383
                          A1
                                 19980722
```

AB The title compds. R5R4R3SO2NR2CHR1COY [R1 = (un)substituted alkyl, aryl, aralkyl, heteroaryl, etc.; R2 = H, (un)substituted alkyl, etc.; R3 = single bond, (un)substituted arylene, etc.; R4 = single bond, CH:CH, C.tplbond.C, CO, CONH, N:N, NHCONH, NHCO, O, S, SO2NH, etc.; R5 = (un)substituted alkyl, cycloalkyl, etc.; Y = NHOH, OH; a proviso is given] are prepared The title compound (R)-I in vitro showed IC50 of 3.95 μM against MMP-9 (gelatinase B).

ΙT 193807-58-8P 193807-98-6P 193807-99-7P 193808-00-3P 193808-01-4P 193808-03-6P 193808-04-7P 193808-05-8P 193808-07-0P 193808-08-1P 193808-09-2P 193808-10-5P 193808-11-6P 193808-12-7P 193808-13-8P 193808-15-0P 193808-17-2P 193808-18-3P 193808-19-4P 193808-20-7P 193808-21-8P 193808-23-0P 193808-25-2P 193808-27-4P 193808-29-6P 193808-32-1P 193808-35-4P 193808-37-6P 193808-39-8P 193808-41-2P 193808-44-5P 193808-46-7P 193808-49-0P 193808-50-3P 193808-51-4P 193808-52-5P 193808-54-7P 193808-56-9P 193808-57-0P 193808-58-1P 193808-60-5P 193808-61-6P 193808-90-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of sulfonylamino acid derivs. as metalloproteinase inhibitors)

RN 193807-58-8 CAPLUS

CN D-Phenylalanine, N-([1,1'-biphenyl]-4-ylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 193807-98-6 CAPLUS

CN 2-Thiazolepropanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-(9CI) (CA INDEX NAME)

RN 193807-99-7 CAPLUS

CN 1H-Indole-2-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-00-3 CAPLUS

CN 1H-Indole-2-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-5-methoxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} H & CO_2H & O \\ \hline \\ N & CH_2 - CH - NH - S \\ \hline \\ O & O \end{array} \stackrel{Pr}{\longrightarrow} \begin{array}{c} Pr \\ \\ O \\ \end{array}$$

RN 193808-01-4 CAPLUS

CN 1-Naphthalenepropanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-(9CI) (CA INDEX NAME)

CN [1,1'-Biphenyl]-4-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-, (α R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-04-7 CAPLUS

CN Butanoic acid, 2-[([1,1'-biphenyl]-4-ylsulfonyl)amino]-4,4,4-trifluoro-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-05-8 CAPLUS

CN Benzenebutanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]- (9CI) (CA INDEX NAME)

RN 193808-07-0 CAPLUS

CN Phenylalanine, N-([1,1'-biphenyl]-4-ylsulfonyl)-4-fluoro- (9CI) (CA INDEX NAME)

RN 193808-08-1 CAPLUS

CN Cyclohexanepropanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-, (α R)- (9CI) (CA INDEX NAME)

RN 193808-09-2 CAPLUS

CN lH-Indole-2-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-1-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{CO}_2\text{H} & \text{O} \\ \hline & \text{CH}_2\text{--}\text{CH}\text{--}\text{NH}\text{--}\text{S} \\ \hline & \text{O} \end{array}$$

RN 193808-10-5 CAPLUS

CN 1H-Indole-2-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-1,5-dimethyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{CO}_2\text{H} & \text{O} \\ \hline & \text{N} & \text{CH}_2\text{--}\text{CH}\text{--}\text{NH}\text{--}\text{S} \\ \hline & \text{O} & \text{O} \end{array}$$

RN 193808-11-6 CAPLUS

CN 1H-Indole-2-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-5-fluoro-1-methyl- (9CI) (CA INDEX NAME)

RN 193808-12-7 CAPLUS

CN 4-Pyridinepropanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-(9CI) (CA INDEX NAME)

RN 193808-13-8 CAPLUS

CN 2-Benzothiazolepropanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & CO_2H & O \\ & & \\ &$$

RN 193808-15-0 CAPLUS

CN Phenylalanine, N-([1,1'-biphenyl]-4-ylsulfonyl)- β -hydroxy- (9CI) (CA INDEX NAME)

RN 193808-17-2 CAPLUS

CN D-Aspartic acid, N-([1,1'-biphenyl]-4-ylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-18-3 CAPLUS

CN D-Glutamic acid, N-([1,1'-biphenyl]-4-ylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & &$$

RN 193808-19-4 CAPLUS

CN D-Serine, N-([1,1'-biphenyl]-4-ylsulfonyl)- (9CI) (CA INDEX NAME)

RN 193808-20-7 CAPLUS

CN D-Homoserine, N-([1,1'-biphenyl]-4-ylsulfonyl)-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & \\ & &$$

RN 193808-21-8 CAPLUS

CN D-Phenylalanine, N-([1,1'-biphenyl]-4-ylsulfonyl)-4-carboxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-23-0 CAPLUS

CN lH-Benzimidazole-2-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{CO}_2\text{H} & \text{O} \\ & \text{N} \\ & \text{NH} & \text{CH}_2\text{-CH-NH-S} \\ & \text{O} & \text{O} \\ \end{array}$$

RN 193808-25-2 CAPLUS

CN 1H-Benzimidazole-2-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-1-(methylsulfonyl)- (9CI) (CA INDEX NAME)

RN 193808-27-4 CAPLUS

CN 1H-Benzimidazole-2-propanoic acid, α -[([1,1'-biphenyl]-4-ylsulfonyl)amino]-1-(methoxycarbonyl)- (9CI) (CA INDEX NAME)

RN 193808-29-6 CAPLUS

CN 1H-Benzimidazole-2-propanoic acid, α -[[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]amino]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-32-1 CAPLUS

CN 1H-Benzimidazole-2-propanoic acid, α -[[(3'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]amino]-, (R)- (9CI) (CA INDEX NAME)

RN 193808-35-4 CAPLUS

CN lH-Benzimidazole-2-propanoic acid, α -[[(4'-methyl[1,1'-biphenyl]-4-yl)sulfonyl]amino]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-37-6 CAPLUS

CN 1H-Benzimidazole-2-propanoic acid, $\alpha-[(4'-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]amino]-, (R)- (9CI) (CA INDEX NAME)$

Absolute stereochemistry.

RN 193808-39-8 CAPLUS

CN 1H-Benzimidazole-2-propanoic acid, α -[[[4'-(methylthio)[1,1'-biphenyl]-4-yl]sulfonyl]amino]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-41-2 CAPLUS

CN D-Valine, N-([1,1'-biphenyl]-4-ylsulfonyl)- (9CI) (CA INDEX NAME)

RN 193808-44-5 CAPLUS

CN D-Valine, N-[[4'-(1,1-dimethylethyl)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-46-7 CAPLUS

 $\label{eq:cn_def} \text{CN} \quad \text{D-Valine, N-([1,1':4',1''-terphenyl]-4-ylsulfonyl)- (9CI)} \quad \text{(CA INDEX NAME)}$

Absolute stereochemistry.

RN 193808-49-0 CAPLUS

CN D-Valine, N-[[4'-(trifluoromethyl)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-50-3 CAPLUS

CN D-Valine, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 193808-51-4 CAPLUS

CN D-Valine, N-[(4'-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-52-5 CAPLUS

CN D-Valine, N-[(4'-methyl[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-54-7 CAPLUS

CN D-Phenylalanine, N-[(4'-methoxy[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 193808-56-9 CAPLUS

CN D-Phenylalanine, N-([1,1':4',1''-terphenyl]-4-ylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-57-0 CAPLUS

CN D-Phenylalanine, N-[(4'-methyl[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-58-1 CAPLUS

CN D-Phenylalanine, N-[(4'-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)

RN 193808-60-5 CAPLUS

CN D-Phenylalanine, N-[[4'-(methylthio)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 193808-61-6 CAPLUS

CN D-Valine, N-[[4'-(methylthio)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 193808-90-1 CAPLUS

CN D-Phenylalanine, N-[[4'-(1,1-dimethylethyl)[1,1'-biphenyl]-4-yl]sulfonyl]- (9CI) (CA INDEX NAME)

IT 193810-34-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of sulfonylamino acid derivs. as metalloproteinase inhibitors)

RN 193810-34-3 CAPLUS

CN D-Phenylalanine, N-([1,1'-biphenyl]-4-ylsulfonyl)-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

=> d his

L1

(FILE 'HOME' ENTERED AT 07:15:23 ON 18 NOV 2004)

FILE 'REGISTRY' ENTERED AT 07:15:28 ON 18 NOV 2004 STRUCTURE UPLOADED 0 S L1

L2 0 S L1 L3 0 S L1 FUL

L4 STRUCTURE UPLOADED
L5 STRUCTURE UPLOADED
L6 STRUCTURE UPLOADED

L7 946 S L6 FUL

FILE 'CAPLUS' ENTERED AT 07:19:14 ON 18 NOV 2004

L8 88 S L7

L9 23591 S METALLOPRO? L10 42 S L9 AND L8

=> d 16

L6 HAS NO ANSWERS

L6 STR